

REMARKS

The Examiner is thanked for performing a thorough search. In this reply, Claims 4, 5, and 8-16 have been amended. Claims 17-20 have been added. Claims 1-20 are pending in the application.

CLAIM REJECTIONS—35 U.S.C. § 112, SECOND PARAGRAPH

Claims 1, 6, and 8 were rejected under 35 U.S.C. §112, second paragraph as being indefinite, allegedly, “for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.” Specifically, the Office Action asserted that “it is not well-known in the art how data types have unique memory addresses associated with them.”

The detailed description explains how opaque types (which are data types) may be associated with memory addresses. Paragraph [0038] describes the entries of dispatch table 112. As is stated in paragraph [0038], “Each entry contains **memory addresses of routines** that are implemented by the opaque type implementor that implements the **opaque type** that is indicated by that entry. Table 1, immediately following paragraph [0038], shows an example of dispatch table 112. Each entry (i.e., table row) indicates an **association** between (a) an identity of an opaque type (which is a **data type**), and (b) one or more addresses (which are **memory addresses**) of one or more routines.

As is explained in paragraph [0039], the opaque type implementor for a given opaque type may load routines into memory, and then specify, to loader application 102, the memory addresses where those routines have been loaded. Loader application 102 then adds entries to dispatch table 112 based on the memory addresses received from the opaque type implementor. Thus, the detailed description describes **data types associated with memory addresses** and **how those data types come to be associated with those memory addresses**.

For at least the above reasons, the Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. §112, second paragraph.

CLAIM REJECTIONS—35 U.S.C. § 101

Claims 9-16 were rejected under 35 U.S.C. § 101 because the claims are allegedly directed to non-statutory subject matter.

The Office Action rejected Claims 9-16 under 35 U.S.C. § 101 specifically because the claims' scope encompassed "transmission media," which the Office Action deemed to be intangible, and therefore allegedly non-statutory, subject matter. Claims 9-16 have been amended to recite a "computer-readable **storage** medium." Applicants respectfully submit that this amendment remedies the alleged deficiencies of Claims 9-16 under 35 U.S.C. § 101.

For at least the above reasons, the Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. §101.

CLAIM REJECTIONS—NONSTATUTORY DOUBLE PATENTING

Claims 1-16 were provisionally rejected under the judicially created doctrine of double patenting over Claims 1-26 of copending U.S. Publication No. U.S. 2005/0050092 ("Jain").

Jain and the present application are assigned to the same entity and were filed on the same day. A terminal disclaimer, which should serve to obviate the double patenting rejection, has been filed with this reply.

For at least the above reasons, the Applicants respectfully request the withdrawal of the nonstatutory double patenting rejection.

CLAIM REJECTIONS—35 U.S.C. § 102(b)

Claims 1-16 were rejected under 35 U.S.C. 102(b) as being anticipated, allegedly, by U.S. Patent No. 6,085,198 (“Skinner”). The rejections are respectfully traversed for at least the reasons discussed below.

Claim 1

Among other features, Claim 1 recites, “generating . . . a data stream that conforms to a format of data blocks of said database.” The Office Action alleges that Skinner discloses this feature in col. 31, lines 1-2, which read, “public void set <attributeName> (<dataTypeJavaInterfaceDeclaration> <attributeName>).” This does not say or imply anything about whether a data stream **conforms to a format of data blocks of a database**. Even if this code has something to do with generating a data stream, the cited text provides no support for the notion that the data stream conforms to any specific format, let alone the format of a database’s data blocks. Therefore, Skinner fails to teach, disclose, or suggest “generating . . . a data stream that conforms to a format of data blocks of said database” as recited in Claim 1.

For at least the above reasons, the Applicants respectfully submit that Claim 1 is patentable over Skinner under 35 U.S.C. § 102(b).

Claim 6

Claim 6 additionally recites, “wherein said determining comprises locating **addresses of one or more routines that are in a same entry of a table as an identity of said type**.” Thus, Claim 6 requires a table that contains an entry that contains (a) addresses of one or more **routines** and (b) an identity of a type of data (i.e., a **data type**).

In the rejections under 35 U.S.C. §112, second paragraph, discussed above, the Office Action took the position that the prior art does not contain (because it is allegedly not “well-known” in the art) any teaching of how a data type can be associated with a memory address. Yet, Claim 6 recites a data type that is associated with a (memory) address by virtue of an identity of that data type and that address both being in the same entry of a table. It is grossly inconsistent for the Office Action to also take the position that Skinner, allegedly in the prior art, actually **does** disclose such an association.

In fact, though, Skinner doesn’t disclose a table entry that contains both an identity of a data type and addresses **of one or more routines**. The Office Action asserts that Skinner discloses such a table entry at col. 16, line 40. The text at and around this area of Skinner says, “By extracting the attribute names and associated data types for persistent data in each data class, as defined in the schema database, commands, such as SQL ‘create table’ commands, can be generated and used by the datastore component to structure the database at startup.” The Office Action appears for some reason to focus on the phrase “associated data types” in this text. However, there is no mention in the cited text of “routines” or “addresses” of such routines that would be contained in a table entry. The “associated data types” are neither routines nor addresses of such routines.

Although the Office Action does not expressly say so, perhaps the Office Action means that the “create table” commands referenced in this text are supposed to be analogous to the “routines.” However, even if the commands were “routines,” there is no indication that “addresses” of the commands are ever stored in a table entry themselves.

Therefore, Skinner fails to teach, disclose, or suggest “wherein said determining comprises locating **addresses of one or more routines that are in a same entry of a table as**

an identity of said type” as recited in Claim 6. For at least the above reasons, the Applicants respectfully submit that Claim 6 is patentable over Skinner under 35 U.S.C. § 102(b).

Claim 8

Like Claim 6, Claim 8 also refers to one or more **addresses** that are associated with a data type. As is discussed above, Skinner does not disclose any association between addresses and data types. The Office Action alleges that Skinner discloses the features of Claim 8 at col. 18, lines 6-10. This portion of Skinner mentions “method calls,” which the Office Action apparently analogizes to the “routines” recited in Claim 8, but this portion of Skinner says nothing about associations between **addresses** and data types. Indeed, this portion of Skinner does not even indicate that the “method calls” themselves are in any way **associated** with data types.

Additionally, Claim 8 has been amended to more specifically require that the **association** between the one or more addresses and the data type be **via an associative structure** (for example, dispatch table 112 described in the detailed description of the present application). Skinner does not disclose, teach, or suggest that one or more **addresses** of one or more **routines** are **associated with a data type via an associative structure**.

Skinner fails to disclose “wherein said invoking comprises invoking one or more routines that are located at one or more addresses that are associated with said type via an associative structure” as recited in Claim 8. For at least the above reasons, the Applicants respectfully submit that Claim 8 is patentable over Skinner under 35 U.S.C. § 102(b).

Remaining Dependent Claims

The remaining dependent claims not specifically discussed above depend from Claim 1. Therefore, these remaining claims inherit the features of Claim 1 that have been distinguished from Skinner above. Applicants respectfully submit that the remaining dependent claims also are patentable over Skinner under 35 U.S.C. § 102(b).

CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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by 
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